

WHAT IS CLAIMED IS:

1 1. A system for supporting inter-domain call
2 signaling over a broadband network, comprising:
3 a first node associated with a first domain, said
4 first node including switching intelligence and narrowband
5 switching fabric;
6 a plurality of second nodes within said first
7 domain, each second node of said plurality of second nodes
8 including broadband switching fabric, an endpoint one of
9 said second nodes providing an inter-domain call
10 connection via the broadband network; and
11 an interworking entity within said first domain
12 operatively connectable to said first node and said
13 plurality of second nodes, said interworking entity being
14 adapted to represent said inter-domain call connection as
15 a dynamic device, maintain endpoint information associated
16 with said endpoint second node and configure said dynamic

17 device to be correlated with said endpoint information,
18 said dynamic device being used by said first node for
19 controlling said inter-domain call connection.

1 2. The system of Claim 1, wherein said first node
2 is comprised of a legacy switch including narrowband
3 switching fabric.

1 3. The system of Claim 1, wherein said plurality of
2 second nodes comprise at least part of the broadband
3 network.

1 4. The system of Claim 1, wherein said endpoint
2 second node is a media gateway, and wherein said endpoint
3 information includes an address for said media gateway and
4 a logical connection identifier.

1 5. The system of Claim 1, wherein said intermediate
2 node further includes at least one pre-configured device
3 used by said first node in controlling intra-domain call
4 connections associated with at least one of said plurality
5 of second nodes, said dynamic device being used by said
6 first node the same as said at least one pre-configured
7 device.

1 6. The system of Claim 1, wherein said dynamic
2 device is removed when said inter-domain call connection
3 is released.

1 7. The system of Claim 1, wherein said inter-domain
2 call connection is established using a bearer independent
3 call control (BICC) signaling protocol.

1 8. The system of Claim 7, wherein said first node
2 is further adapted to send a seize device message to said
3 interworking entity to setup said inter-domain call
4 connection.

1 9. The system of Claim 8, wherein said interworking
2 entity is further adapted to create said dynamic device in
3 response to receipt of said seize device message.

1 10. The system of Claim 8, wherein said interworking
2 entity is further adapted to send a seize device response
3 message including said dynamic device to said first node
4 upon creation of said dynamic device.

1 11. The system of Claim 10, wherein said interworking
2 entity is further adapted to send a bearer established
3 message to said first node upon setup of said inter-domain
4 call connection.

1 12. The system of Claim 7, wherein said interworking
2 entity is further adapted to populate said endpoint
3 information and said dynamic device into a BICC setup
4 message.

1 13. The system of Claim 12, further comprising:
2 a second domain having an additional first node
3 including switching intelligence, an additional plurality
4 of second nodes including broadband switching fabric and
5 an additional interworking entity operatively connectable
6 to said first node and said plurality of second nodes.

1 14. The system of Claim 13, wherein said additional
2 first node is adapted to receive said BICC setup message
3 and send a seize device command to said additional
4 interworking entity in response to receipt of said BICC
5 setup message.

1 15. The system of Claim 14, wherein said additional
2 interworking entity is further adapted to create an
3 additional dynamic device in response to receipt of said
4 seize device message, said additional dynamic device
5 representing an additional endpoint one of said additional
6 plurality of second nodes providing said inter-domain call
7 connection via the broadband network.

1 16. The system of Claim 15, wherein said additional
2 interworking entity is further adapted to send a seize
3 device response message including said additional dynamic
4 device to said additional first node upon creation of said
5 additional dynamic device.

1 17. The system of Claim 15, wherein said additional
2 interworking entity is further adapted to send said
3 endpoint information to said additional endpoint second
4 node to establish said inter-domain call connection.

1 18. The system of Claim 7, wherein said first node
2 is further adapted to send a release device message to
3 said interworking entity to release said inter-domain call
4 connection.

1 19. The system of Claim 18, wherein said interworking
2 entity is further adapted to send a release device
3 response message to said first node to discontinue using
4 said dynamic device.

1 20. The system of Claim 18, wherein said interworking
2 entity is further adapted to send a bearer released
3 message to said first node upon release of said inter-
4 domain call connection.

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1 21. An interworking node for supporting inter-domain
2 call signaling over a broadband network, said interworking
3 node being operatively connectable to a plurality of
4 connection control nodes, each having broadband switching
5 fabric, and a call control node within a domain, said call
6 control node having switching intelligence and narrowband
7 switching fabric, said interworking node comprising:
8 a memory for storing endpoint information
9 associated with said endpoint second node; and
10 a dynamic device representing an inter-domain
11 call connection provided by an endpoint one of the
12 plurality of second nodes, said dynamic device being
13 correlated with said endpoint information, said dynamic
14 device being used by said first node for controlling said
15 inter-domain call connection.

1 22. The interworking node of Claim 1, wherein said
2 endpoint second node is a media gateway, and wherein said
3 endpoint information includes an address for said media
4 gateway and a logical connection identifier.

1 23. The interworking node of Claim 1, wherein said
2 dynamic device is removed from said interworking node when
3 said inter-domain call connection is released.

1 24. The interworking node of Claim 1, wherein said
2 inter-domain call connection is established using a bearer
3 independent call control (BICC) signaling protocol.

1 25. The interworking node of Claim 24, further
2 comprising:

3 means for populating said endpoint information
4 and said dynamic device into a BICC setup message.

1 26. A telecommunications network system for
2 communicating data between a first service domain and a
3 second service domain, said second service domain having
4 a second call control node including switching
5 intelligence and narrowband switching fabric and a second
6 connection control node having broadband switching fabric,
7 said first service domain comprising:

8 a first call control node including switching
9 intelligence and narrowband switching fabric; and

10 a first connection control node including
11 broadband switching fabric and having a broadband
12 connection thereto for communicating data with said second
13 connection control node within said second service domain;

14 wherein said first call control node of said
15 first service domain is coupled to a communication module
16 for communicating data with said second call control node
17 associated with said second service domain.

1 27. The domain of Claim 26, wherein said first and
2 second connection control nodes comprise at least part of
3 a broadband network.

1 28. The domain of Claim 27, wherein communications
2 between said first and second call control nodes are
3 established using a bearer independent call control (BICC)
4 signaling protocol over said broadband network.

1 29. The domain of Claim 26, wherein said first call
2 control node uses a dynamic device stored within said
3 communication module to communicate data with said second
4 call control node.

1 30. The domain of Claim 29, wherein said dynamic
2 device is removed when communications between said first
3 and second call control nodes are completed.

1 31. A method for supporting inter-domain call
2 signaling over a broadband network, comprising the steps
3 of:

4 creating a dynamic device associated with a first
5 node within a first domain, said dynamic device
6 representing an inter-domain call connection, said dynamic
7 device being correlated with an endpoint one of a
8 plurality of second nodes within said first domain and
9 configured by a third node based on endpoint information
10 associated with said endpoint second node and based on
11 instructions provided by said first node; and

12 establishing said inter-domain call connection
13 via the broadband network through said endpoint second
14 node using said dynamic device.

1 32. The method of Claim 31, wherein said endpoint
2 second node is a media gateway, and wherein said endpoint
3 information includes an address for said media gateway and
4 a logical connection identifier.

1 33. The method of Claim 31, wherein said step of
2 establishing further comprises the step of:

3 establishing said inter-domain call connection
4 using a bearer independent call control (BICC) signaling
5 protocol.

1 34. The method of Claim 33, further comprising the
2 step of:

3 sending a seize device message from said first
4 node to said third node to setup said inter-domain call
5 connection.

1 35. The method of Claim 34, wherein said step of
2 creating further comprises the step of:

3 creating said dynamic device by said third node
4 in response to receipt of said seize device message.

1 36. The method of Claim 35, further comprising the
2 step of:

3 sending a seize device response message including
4 said dynamic device from said third node to said first
5 node upon creation of said dynamic device.

1 37. The method of Claim 36, further comprising the
2 step of:

3 sending a bearer established message from said
4 third node to said first node upon setup of said inter-
5 domain call connection.

1 38. The method of Claim 33, further comprising the
2 step of:

3 populating said endpoint information and said
4 dynamic device into a BICC setup message.

1 39. The method of Claim 38, further comprising the
2 steps of:

3 receiving said BICC setup message at an
4 additional first node within a second domain; and

5 sending a seize device command from said
6 additional first node to an additional third node within
7 said second domain in response to receipt of said BICC
8 setup message.

1 40. The method of Claim 39, further comprising the
2 step of:

3 creating an additional dynamic device by said
4 additional third node in response to receipt of said seize
5 device message, said additional dynamic device
6 representing an additional endpoint one of an additional
7 plurality of second nodes within said second domain, said
8 additional endpoint second node providing said inter-
9 domain call connection via the broadband network.

1 41. The method of Claim 40, further comprising the
2 step of:

3 sending a seize device response message including
4 said additional dynamic device from said additional third
5 node to said additional first node upon creation of said
6 additional dynamic device.

1 42. The method of Claim 40, wherein said step of
2 establishing further comprises the step of:

3 sending said endpoint information to said
4 additional endpoint second node to establish said inter-
5 domain call connection.

1 43. The method of Claim 33, further comprising the
2 step of:

3 sending a release device message from said first
4 node to said third node to release said inter-domain call
5 connection.

1 44. The method of Claim 43, further comprising the
2 step of:

3 sending a release device response message from
4 said third node to said first node to discontinue using
5 said dynamic device.

1 45. The method of Claim 43, further comprising the
2 step of:
3 sending a bearer released message from said third
4 node to said first node upon release of said inter-domain
5 call connection.

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